

## **Invention Description**

This report has been assembled after a thorough review of the information presented by the inventor, notes from your New Product Manager, and other pertinent data relating to construction materials, manufacturing processes, and overall product design.

This first section of the report takes a closer look at your product's producibility and advantages in use. Our writers are familiar with the specified production materials and have become well acquainted with the intended benefits of your proposed new product.

The purpose of this report is to present the conceptual highlights of your invention in a concise introductory format. This description, along with the graphic illustration and your disclosure forms, will help you to establish the recorded date of your invention's conception.

## INTRODUCTION

The following report is based on an invention called Fine Paper & Lighter, as described by its Inventor, Felix Vazquez. This report has been prepared by International Product Design of Washington, D.C., based upon information provided by the Inventor and by International Product Design's Research Department and research consultants assigned to the project.

Ideas and comments lying outside the realm of the Inventor's specifications have been added throughout the report. These comments are the result of in-depth study by the research department, consultants and technical writers.

Fine Paper & Lighter is a specially-designed cigarette rolling paper packaged with a disposable lighter. It is a convenience for smokers who enjoy, or for economic reasons prefer, rolling their own cigarettes.

This report is designed to help the Inventor better understand the major components of Fine Paper & Lighter and thus assess its future possibilities. It seeks to discover those strengths and advantages that make the product unique and novel. It also seeks to identify potential problems of which the Inventor should be made aware as well as explore possible variations and modifications to further improve the design of Fine Paper & Lighter.

A complete description of the invention, its applications and purposes as well as any possible modifications or variants are found in Sections A, B and C. Section A serves as a background for the need of an invention such as Fine Paper & Lighter, while Section B describes its technical workings and Section C outlines any possible modifications that would enhance its use and possible markets. Such modifications are suggested in addition to, not instead of, the basic premise as described by the Inventor. A discussion of the technical assumptions, tooling processes and technology is located in Section D, followed by cost and price estimates of the invention in Section E.

In covering these considerations, however, the report does not propose to be all-inclusive of every aspect that these factors attempt to address. The aims and purposes are to chart one or more paths by which the innovation may be advanced and, again, to enlighten the Inventor of any potential problems that may arise, requiring additional research and ensuing development.

## A. BACKGROUND

To assess any new product's future acceptance and popularity and its utilitarian purposes, one should research the background and the need of such an innovation. In the wake of such necessity, we shall delve into the basic attraction of Fine Paper & Lighter, while examining its operation and use, and in so doing, we shall look at the populace that would find the invention beneficial and, perhaps, profitable and examine the reasons why.

We also shall research any problem or problems Fine Paper & Lighter, through consumer application of the product, might address and, therefore, serve as a sensible solution. In describing the performance and possible benefits of Fine Paper & Lighter, we attempt to relate those views held by the Inventor as to intended execution and advantages.

This section addresses the background of the idea's conception and the problems it is designed to ease or eliminate.

The practice of buying fine rice paper with which to roll tobacco for individual cigarettes is wide spread in the United States and even more so in other countries such as Canada. A new product, Fine Paper & Lighter, eliminates the need for the user to also buy a disposable lighter as a lighter. It is included with the package of rolling paper.

The market for Fine Paper & Lighter would be the significant population of the 40 million smokers in the United States in addition to the international market.

Because of the problems that Fine Paper & Lighter addresses and solves through its application, consumers will find such an invention attractive and appealing. But purchases of items such as Fine Paper & Lighter depend upon the level of discretionary purchasing power, that is the portion of a consumer's income remaining after necessities such as housing, transportation and food have been provided for.

The American economy, after eight years of continuous expansion, is now in a period of recession that began in early 1990. Business cycles are inevitable in our capitalistic system, and typically, post-war recessions have been characterized by a duration of from 18 months to 30 months. Based on the 46-year post-war experience, recovery can reasonably be forecast to begin in 1992. Experience has also revealed that periods of readjustment in the economy have little effect on the introduction of innovative products into the market place.

The following graphic presentation identifies the potential markets for the product. The chart will serve to determine and quantify those groups within the population that are most promising as consumers of this product or, if such identification and quantification are impossible, to estimate the potential market with a chart that recognizes trends in the sales or production of the product group within which the invention falls.

## B. INVENTION DESCRIBED AND FUNCTIONAL OVERVIEW

To facilitate one's proper comprehension and understanding of a new product, that idea must be described not only as it exists as an answer to a subsistent problem but also as it functions physically. And incorporated into this overview the invention must be outlined and described in its physical appearance.

Based upon the Inventor's description and any outside research that may be pertinent, we will describe the basic overall shape and design of Fine Paper & Lighter. Materials of which the invention would be produced also will be highlighted where appropriate.

The design of Fine Paper & Lighter calls for fine rice paper one and one-half inches in width and three inches in length. The paper is fabricated in a booklet and features the attachment of a disposable cigarette lighter.

The paper and lighter are printed with lettering "Paper With Lighter."

It should be noted, however, that the basic form and function of this invention may be varied or modified so that the application and use of Fine Paper & Lighter could be broader than originally envisioned. The next section explores possible modifications that could further enhance Fine Paper & Lighter's design.

### C. PROPOSED MODIFICATIONS

In order to fully appreciate the attraction and need of an innovation, one should consider any possible modifications that would arise from employment of the idea.

We, therefore, shall suggest other applications of Fine Paper & Lighter that would merit future consideration and study. The scope of such review will entail the use of materials, other than those specified by Felix Vazquez, the Inventor, of which the product might be manufactured; the possible expansion of the suggested color scheme or plan; a broadened consumer outlet, other than the market specified by the Inventor; or any other possible shape or design that may enhance the utility and salability of the invention. All in all, we shall attempt to identify any variations that further would define the scope of the idea.

One must remember, however, that these modification suggestions may be limited within the latitude of the invention. Some innovations lend themselves easily to future applications, i.e., different shapes, material variants, color schemes, etc. Other inventions, however, are geared to a specific group of consumers, to only one type of material during the manufacturing process, to a particular design; these ideas, therefore, would not be amenable to modifications, suggested changes that perhaps would be construed as destroying the foundation of the product or idea.

Problems that might arise during the development of Fine Paper & Lighter should be amenable to resolution through normal product testing and refinement processes, after which we would anticipate the product could be produced routinely. Whether it would be feasible to do so from the standpoint of economics is another question and one to be decided by potential manufacturers of the product after additional studies.

One possible modification to the basic concept is suggested to augment the usefulness and the popularity of Fine Paper & Lighter, as well as to help solve any problems that might arise.

An optional packaging for Fine Paper & Lighter could also include a packet of tobacco that would provide all the necessary items in one convenient box or package.

Overall, the basic concept behind Fine Paper & Lighter appears to be sound and the product idea workable. The basic materials are readily obtainable, and the concept of rice paper for rolling cigarettes with the convenience of a lighter will have a wide appeal.

Given the previous description of how Fine Paper & Lighter would function and, taking into consideration the questions facing further development of the proposed product, it is our tentative judgment that the idea is based on sound principles and that production version of this item could be developed to perform generally as the Inventor states.

Detailed diagrams and technical specifications remain to be drawn. Nonetheless, we believe that we have a clear idea of the Inventor's intent and goals in submitting this design.



#### D. PRODUCTION CONSIDERATIONS

We now turn to an examination of Fine Paper & Lighter through a study of production considerations. We also shall briefly discuss the need of engineering guidance in the development of a new product such as Fine Paper & Lighter, and we shall address the overall technical picture as defined by production technology and requirements. Clearly, however, in studying this range of production considerations, we cannot offer a complete and comprehensive picture of all possible production considerations.

Drawing on available know-how, the design features included in the Fine Paper & Lighter seem well within the limits of technology. Naturally, however, further design work is necessary to determine the ideal size and shape of the product's components.

The materials submitted by Felix Vazquez describe the concept in enough detail to give a clear understanding of the intent of the design. They indicate no unusual design features that would complicate the preparation of the product. These relate primarily to design, however, rather than to production. There is little question that the technology to produce Fine Paper & Lighter made of fine rice paper and disposable lighters not only exists but is well established.

A single, universally-adaptable version would be the ideal prototype model for Fine Paper & Lighter. Variations on the basic model, however, would vary in price depending on the cost of different materials and colors. For purposes of constructing a prototype model of the Fine Paper & Lighter, a prototype model

could be made along the lines of the invention described by the Inventor.

The production technology would vary little from that currently utilized in the production of similar products. Materials, processes and even construction would be similar, with adaptations made for the specific design of Fine Paper & Lighter. Variations on the basic model again would vary in price depending on the cost of their components.

The components of the Fine Paper & Lighter utilize standard production technology. No new research or development in this area is anticipated, nor is major retooling or materials expense expected. Once the design specifications and the materials specifications are worked out, the device will be aided in its development by consulting with design specialists who would advise on the appearance and styling that would best appeal to potential consumers.

Overall, since this product idea appears to be well thought out and workable, there should be little added research or development required for the production phase of this proposed product, as opposed to that required by the design phase.

The design of Fine Paper & Lighter is innovative and yet relatively simple. Existing production processes and techniques will suffice without resorting to new technology. Based upon our review of the materials submitted by Felix Vazquez, it is our present conclusion that this product can be manufactured from conventional and commercially available materials with existing production technology.

As for the final shape, grade of materials used and performance standards for each component, these determinations would depend on the results of both further testing and research.

The following graphic presentation in this section identifies trends in the production of the material of which Fine Paper & Lighter is fabricated, retail sales of the invention product group or retail sales of outlets that would typically sell this invention.

## E. COST AND PRICE ESTIMATES

Once an estimate of the cost of producing Fine Paper & Lighter has been determined, consideration must be given to the type of markup structure most feasible for a particular item in determining its final retail price. Pricing is a complicated process and must take into consideration the cost to manufacturers, to wholesalers or distributors and, finally, to the retailer. There must be a margin of profit at the manufacturing, wholesaling and retailing levels over and above the costs incurred at each stage.

Before manufacturers determine their pricing, they must include the fixed costs associated with their industry and with the particular item to be manufactured. These costs included the cost of equipment or retooling, materials, labor and overhead, as well as non-production costs such as handling, and shipping, sales expense and product liability insurance.

The cost and price estimates for Fine Paper & Lighter have been developed by comparing this product to others we judge to be similar in composition and complexity. In estimating retail costs, we have applied markups that are standard to the industry.

These estimates are:

*PRODUCTION COST	\$ 0.35
*WHOLESALE COST	\$ 0.75
*RETAIL PRICE	\$ 1.49

(\*These figures are strictly preliminary estimates and will vary according to specific materials and specifications as well as to economic status in relation to current retail buying trends.)

Production Cost includes the costs of materials and labor only. Wholesale Cost Price is freight on board (a price f.o.b. does not include carriage costs from the seller to the buyer) point of manufacture, and includes estimates of amortization of fixed costs, overhead and possible profit to a manufacturer, but not the cost of distribution.

Retail Price assumes a standard percentage markup for distribution and wholesaling (that in fact varies considerably), and adds retailer's fixed overheads and any potential profits. The resultant estimate is for a "normal" retail outlet.